

Claims

1. In a combination of a retaining arrangement, including a support arm having a first end coupled to a mounting arrangement fixed to a central, top region of an operating unit, and a second end adapted for connection to a vehicle, the improvement comprising: said retaining arrangement including a connection defining an upright axis about which said operating unit may pivot; and at least one safety device being associated with said connection for effecting a normal operating condition preventing pivotal movement about said upright axis, as long as a predetermined condition is not fulfilled, but for effecting a released condition permitting pivotal movement of said operating unit about said upright axis in response to said predetermined condition being fulfilled.

2. The combination, as defined in claim 1, wherein said connection includes a friction lock established between said mounting arrangement and said top region of said operating unit; and said upright axis extending centrally through said friction lock.

3. The combination, as defined in claim 2, wherein said at least one safety device is a shear pin coupling said mounting arrangement to said operating unit at a location offset from said upright axis; and said predetermined condition being a load at which said shear pin shears.

4. The combination, as defined in claim 1, wherein said at least one safety device is a power shifted pin device that is responsive to an electrical control signal for moving from an installed position effecting said normal operating condition, and a retracted position permitting said operating unit to pivot about said upright axis; and a control arrangement including a sensor for sensing the presence of an obstacle in a path of movement of said operating unit and for sending said control signal to said power shifted pin device.

5. The combination, as defined in claim 1, wherein said support arm is constructed of two sections; and said connection includes a hinge forming said upright axis.

6. The combination, as defined in claim 1, wherein said connection

includes a pin fixed to and projecting upwardly from a top surface of said operating unit along said upright axis; said arm having a plate disposed substantially perpendicular to said axis and having a slot receiving said pin and opening only in a direction opposite from a forward direction of travel of said operating unit; said pin having a head at its upper end dimensioned so as to prevent it from passing axially through said slot; and said safety device normally securing said plate to said top surface of said operating element at a location offset from said upright axis.

7. The combination, as defined in claim 1, wherein said connection includes a member having a cylindrical surface extending along said upright axis; said support arm having an end mounted for pivoting about said cylindrical surface; and said safety device normally preventing said relative movement between said arm and said cylindrical surface.